What is diabetes and how does it affect the human body?In recent studies, diabetes is the sixth leading cause of death and the fifth leading cause of death from disease in 2007. (Statistics, Pg1) Diabetes is a disease in which a person's body is incapable of regulating the amount of sugar in their blood; this can cause damage to the kidneys (kidney failure), nerves (causes foot wounds and ulcers), eyes (blindness), and blood vessels. (“Types” Pg1) Statistics show that 10.2% of women living in the Untied States are diagnosed with diabetes from ages 20 years and older and 11.2% are men. (Statistics, Pg. 1) Of the percentages, 3.7 million are African Americans, 14.9 million are Caucasian Americans, and 2.5 million are Hispanic/Latin Americans. (Statistics, Pg. 1) The exact cause of diabetes is unknown; however, a hereditarily vulnerable person has a pathological set off in the body that causes an immune reaction, in which white blood cells misguidedly attack the insulin-generating pancreatic beta cells. In most cases, diabetes is commonly treated with insulin, strict diet plans, and oral-medication (pills). The three main types of diabetes include type I diabetes, type II diabetes, and gestational diabetes. (“Types” Pg1)

Type I diabetes or juvenile diabetes is believed to have been caused by the state of health of the pancreas called pancreatitis; causes the pancreas to become swollen, resulting in severe damage to the cells that produce insulin. (“Types” Pg1) The insulin that produces beta cells of the pancreas is completely destroyed and the body can no longer produce insulin, within five to ten years. (“Types” Pg1) Insulin is needed to move blood sugar into cells, where it is then stored and later used for energy. Without enough insulin, glucose builds up in the bloodstream instead of going into the cells. Therefore, the body is unable to use this glucose for energy; this leads to the symptoms of type I diabetes. Genetics is also a possible for the auto-immune reaction in the body.

Although type I diabetes can occur at any age, it is often diagnosed in children, adolescents, or young adults. (“Top”, Pg1) Due to a diabetics inability to fight off infections in their body, they are more susceptible to getting dangerous infections; an infection may make control of glucose levels more difficult, delaying recovery from an infection. (“Type of Diabetes, Pg1) You have a six percent chance of developing type I diabetes if you have a close relative that has the disease. (“Diabetes” Pg1)0.4% of people who do not have a close relative with type I diabetes still have the risk of contracting the illness. (“Diabetes” Pg1)

Common symptoms of type I diabetes include extreme hunger and thirst, frequent urination, unintentional weight loss, fatigue or drowsiness, losing feeling or feeling a tingling sensation in your feet and blurry vision. (Havas, Stephen) Warning symptoms that a person is becoming very sick may be the first signs of type I diabetes, or may happen when the blood sugar is very high: deep rapid breathing, dry skin and mouth, flushed face, sweet smelling breath odor, nausea or vomiting, inability to keep fluids down, and stomach pain (“Type I Diabetes”, Pg1) The life expectancy for type I diabetes was 12 months before the discovery of and cleansing insulin. (Beran, David)

There are various treatment methods for type I diabetes such as insulin (mealtime insulin, basal insulin, pre-mixed insulin, and pump insulin), oral medication (natural herbs such as cinnamon pills), and others get gastric bypass surgery in order to increase weight loss. (“Type I and II”, Pg1)

You should discuss a diet plan to your doctor, so that your insulin control can be accommodated properly. (“Type I and II”, Pg1) After organizing a diet plan that works best for you, remember to never skip meals, especially when you have taken an insulin injection because your blood sugar will drop too low. You must stick to your diet plan. Insulin should be taken daily if (“Type I and II”, Pg1) Frequently keep track of your glucose level and use your own needles. (“Type I and II”, Pg1) The usage of someone else’s needles can put you at risk for other diseases such as hepatitis C and HIV. (“Type I and II”, Pg1) Always have extra insulin refrigerated in case of needing immediate use. (“Type I and II”, Pg1) Be sure to not place your insulin in a freezer, bright light, and extreme heat. (“Type I and II”, Pg1) When you travel be sure to have your own supply of insulin. (“Type I and II”, Pg1)

The type of insulin you are prescribed is based on the type of diabetes in which you are diagnosed, lifestyle, age, body’s response to insulin, and how many times you are capable or willing to check you blood sugar. (“Type I and II”, Pg1) Bolus or mealtime insulin is usually combined with basal insulin. It is given before meals to regulate the rise of blood glucose levels after eating . (“Type I and II”, Pg1) Basal insulin is usually given once or twice daily; controls blood sugar levels between meals and throughout the night. (“Type I and II”, Pg1) It can be used alone or taken with oral medication or bolus insulin. (“Type I and II”, Pg1) Pre-mixed insulin is taken twice daily after and between meals. Depending on the type of bolus insulin in the mixture, it may take 15-60 minutes for the insulin to work. (“Type I and II”, Pg1)

A patient diagnosed with diabetes nerves, heart, kidney, and eyes are easily affected to numerous problems and damages that could occur to the body. Many diabetics suffer from eye disease brought on by their chronic condition. Blood vessels located in the back of the eye can become inflamed. The weak vessels can also leak blood into the eye, causing poor vision. Often this condition is periodically tested in diabetes patients as, at first, there are no symptoms. (Hoffman, Tracy)  
 As in the eye, blood vessels in the kidney of a Diabetic are susceptible to becoming frail and leaky. When the vessels become weak they leak out protein from the body through the urine and put a ton of stress on the kidney’s prevailing blood vessels. This leads to major problems and might even result in the need for an organ transplant. Due to the high risk of this happening, Diabetics are recommended to have their kidneys tested regularly for any damage. (Hoffman, Tracy)  
 The nerves in your body that allow for pressure and sensation, among other feelings, are prone to becoming weak. Diabetics commonly complain about of nerve damage to their feet and legs. This can often lead to less feeling in the afflicted body parts. Patients are tested for nerve damage generally each year to keep from getting injuries on their limbs. (Hoffman, Tracy)  
 A Diabetics top concern is usually their legs due to the increased chance of them suffering from serious nerve damage. Due to their decreased sensation, injuries are more likely to go unnoticed which can lead to a number of serious infections. Their nerves responsible for feeling are damaged by Diabetes. (Hoffman, Tracy)  
 Weight loss is another serious side effect that Diabetes can have on the human body. The increased blood sugar in Type 1 sufferers can cause a significant weight loss in some people. This symptom is often what alerts a doctor who is treating someone who is an undiagnosed Diabetic. Although it is bothersome, the weight loss and the disease that causes it can be managed adequately with proper diet changes. To prevent infection and major injuries, physicians must screen their Diabetic patients yearly to ensure that these body parts are working properly. (Hoffman, Tracy)